# **Special Issue**

# Recent Developments in Catalytic Materials

# Message from the Guest Editors

This Special Issue focuses on recent developments in catalytic materials, including photocatalysts, piezocatalysts, and tribocatalysts, which are a promising class of functional materials for environmental remediation and energy conversion applications. Photocatalysts, piezocatalysts, and tribocatalysts have demonstrated superior performance in various catalytic applications such as water splitting, CO2 reduction, and wastewater treatment by degrading organic pollutants under visible light irradiation and mechanical energy. The unique electronic and structural properties of catalysts, as well as their surface modification capabilities, make them a versatile platform for designing efficient and selective catalysts. This Special Issue aims to provide a comprehensive overview of recent advances in photocatalysts, piezocatalysts, and tribocatalysts, including their synthesis, characterization, and catalytic applications. We hope that this Special Issue will stimulate further research in the field of photocatalysis, piezocatalysis, and tribocatalysis and promote their practical applications in environmental and energy-related areas.

### **Guest Editors**

Dr. Wanneng Ye

State Key Laboratory of Bio-Fibers and Eco-Textiles, Qingdao University, Qingdao, China

Prof. Dr. Yongcheng Zhang

College of Physics, Qingdao University, Qingdao, China

Dr. Tao Jiang

Department of Environmental and Sustainable Engineering, University at Albany, State University of New York, Albany, NY 12222, USA

# Deadline for manuscript submissions

10 January 2026



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/204606

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed





# About the Journal

# Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

#### Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

# **Author Benefits**

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

# **High Visibility:**

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### **Journal Rank:**

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)